OPERATING SUMMARY

1974

TOWNSHIP OF

LONGLAC

WATER POLLUTION CONTROL PLANT

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TWP OF LONGLAC
WATER POLLUTION CONTROL PLANT

MINISTRY OF THE ENVIRONMENT

1974 ANNUAL OPERATING SUMMARY

prepared by

Plant Performance Unit

TECHNICAL SERVICES BRANCH

T. Cross, Director

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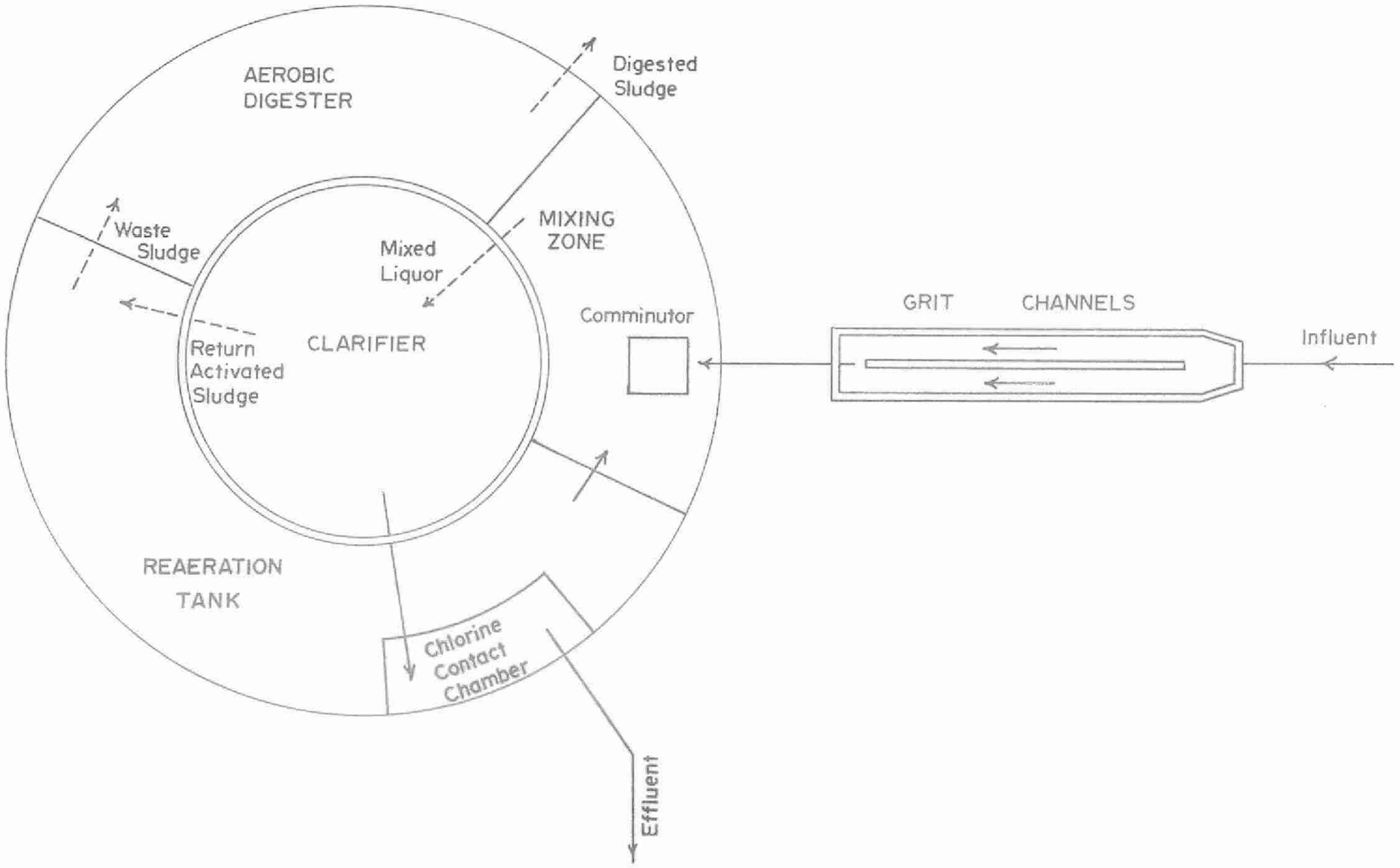
TOWNSHIP OF

LONGLAC

WATER POLLUTION CONTROL PLANT



DESIGN DATA

PROJECT Twp of Longlac WPCP
Project No: 1-0014-66
Treatment: Contact Stabilization
Design Flow: 0.21 MIGD
BOD: Raw Sewage 425 lb. BOD/day

PRETREATMENT

GRIT CHANNELS:

Two, each 21' x 1.5' x 2' swd
Volume (each): 393 I. Gal.
Detention (each) 2.7 min.

COMMINUTOR:

Type: A 10R

BIOLOGICAL TREATMENT

MIXING TANK:

Volume: 26,000 I. Gal. Detention: 3 hours

SETTLING TANK

Volume: 37,000 I. Gal. Detention: 4.2 hours
Overflow Rate: 577 I. Gal/ft^2/day

REAERATION TANK:

Volume: 66,000 I. Gal.

Blowers: Two Type: SUTORBILT 8HB
Size: 590 cfm at 9 psi

AEROBIC DIGESTER:

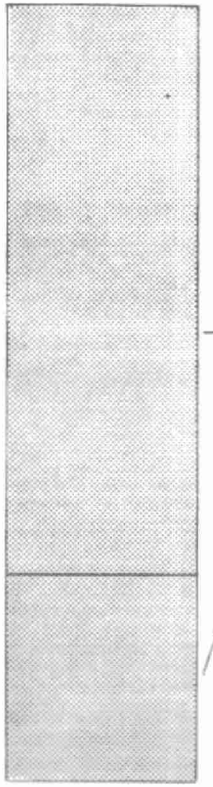
Volume: 46,800 I. Gal.

CHLORINE CONTACT CHAMBER:

Volume: 4300 I. Gal.
Detention: 30 min.

ANNUAL COSTS

1974 OPERATING COSTS



● SALARIES & WAGES	
● EMPLOYEE BENEFITS	
● TRANSPORTATION & COMMUNICATIONS	
● SERVICES	73 %
● SUPPLIES & EQUIPMENT	27 %
● AQUISITION/CONSTRUCTION OF PHYSICAL ASSETS	
● TRANSFER PAYMENTS	
● OTHER TRANSACTIONS	

YEARLY OPERATING COSTS

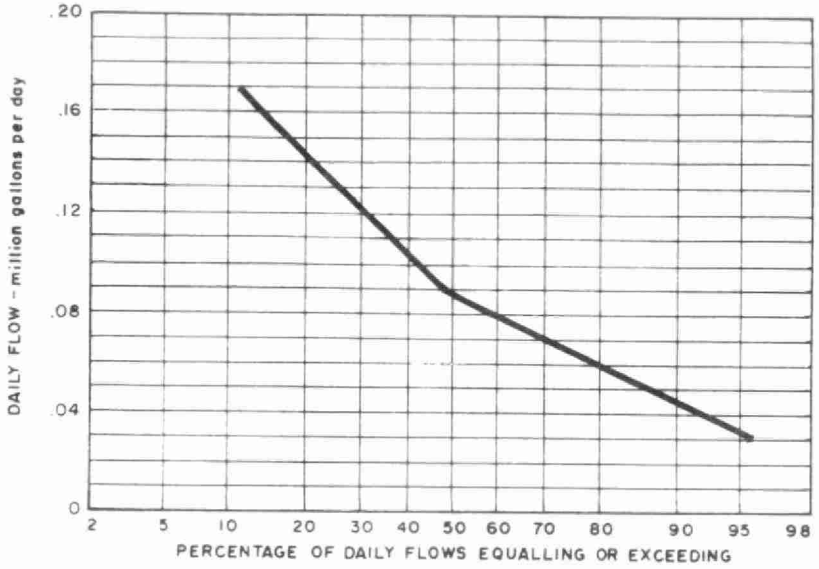
YEAR	SEWAGE TREATED in million gallons	TOTAL OPERATING COSTS	UNIT COSTS	
			$/M.G	¢/lb BOD
1974	36.5 Est.	23,538	645	75

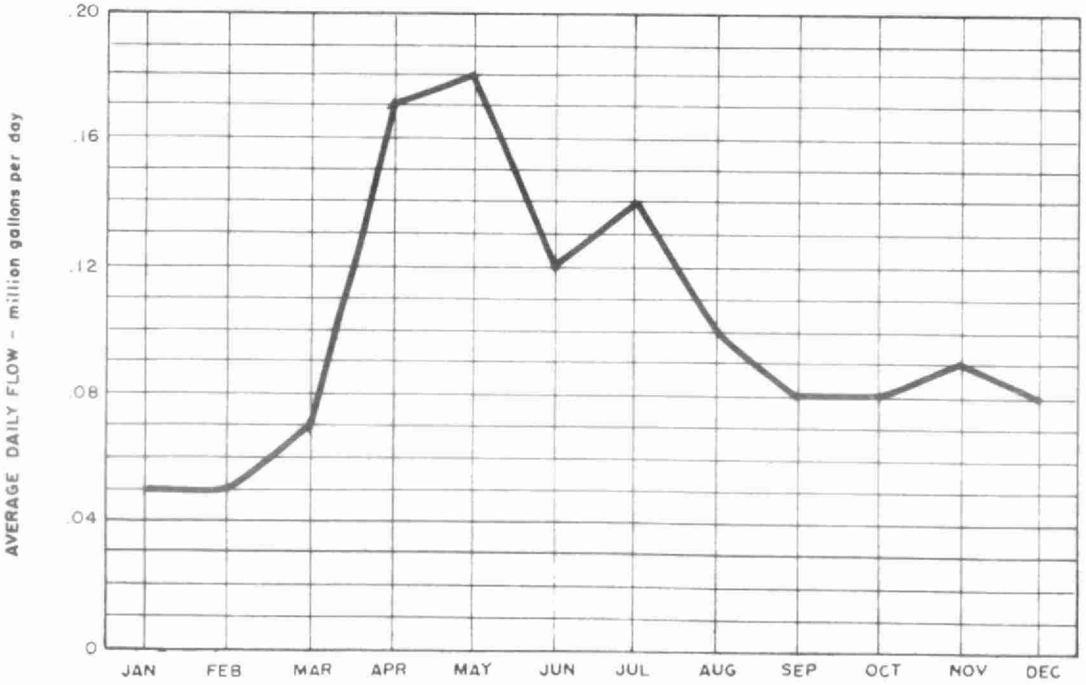
OPERATING EXPENDITURES

Regular Staff	$	$
Casual (Unclassified) Staff		
TOTAL SALARIES AND WAGES		-
TOTAL EMPLOYEE BENEFITS		-
TOTAL TRANSPORTATION AND COMMUNICATIONS		-
Insurance	154	
Sludge Haulage	1,838	
Repairs and Maintenance	14,271	
Other Services	834	
TOTAL SERVICES		17,097
Machinery and Equipment	699	
Chemicals	688	
Utilities	4,792	
Other Supplies and Equipment	262	
TOTAL SUPPLIES AND EQUIPMENT		6,441
TOTAL AQUISITION/CONSTRUCTION OF PHYSICAL ASSETS		-
TOTAL TRANSFER PAYMENTS		-
OTHER TRANSACTIONS		-
GRAND TOTAL	GRAND TOTAL	$ 23,538

PROCESS DATA

FLOWS



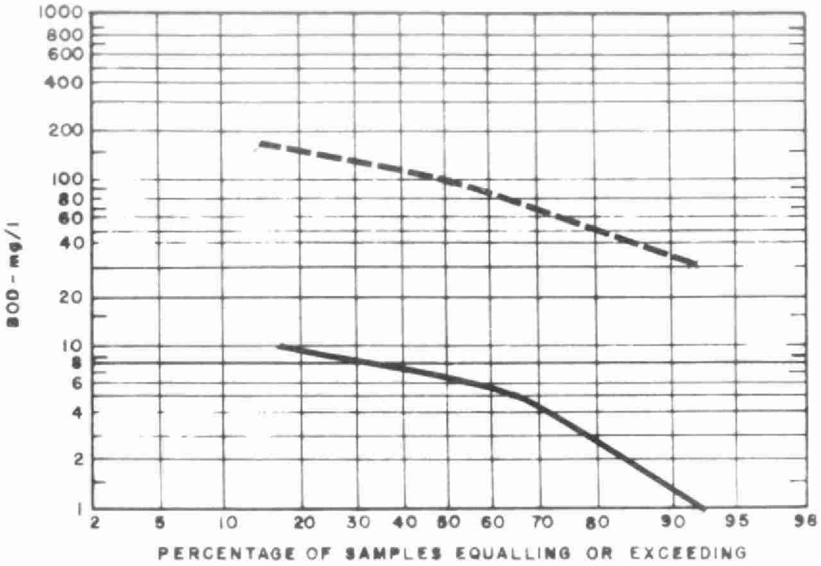


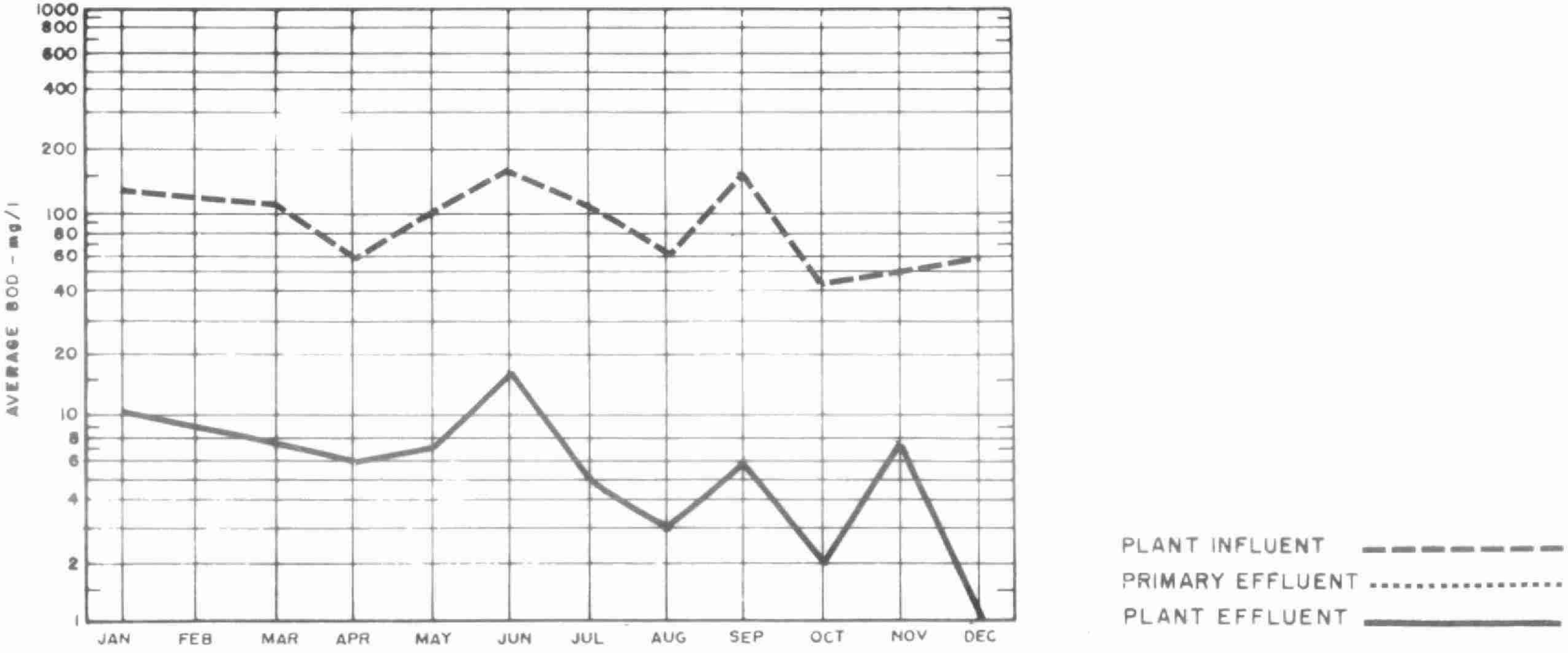
DESIGN CAPACITY _ _ _ _ _ _ _ _

PLANT PERFORMANCE

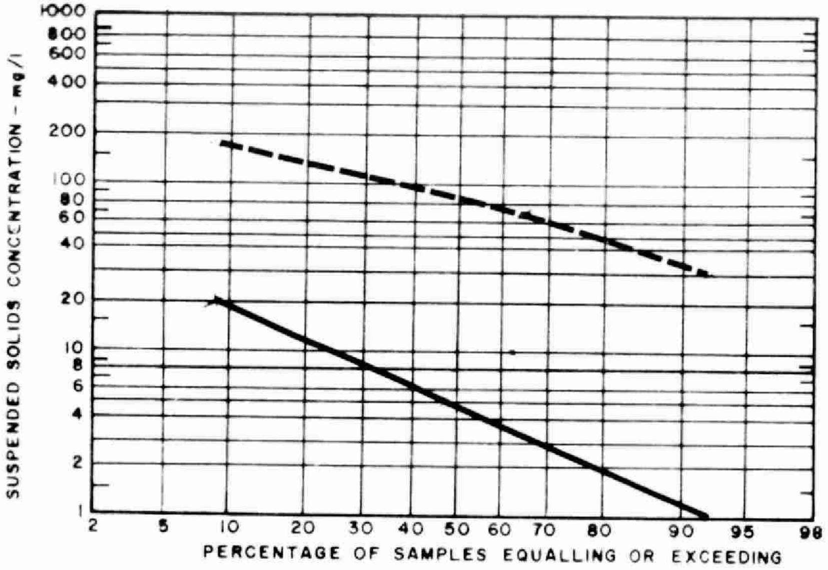
MONTH	FLOWS			BIOCHEMICAL OXYGEN DEMAND				SUSPENDED SOLIDS				PHOSPHORUS	
	TOTAL FLOW	AVERAGE DAY	MAXIMUM DAY	INFLUENT	EFFLUENT	REDUCTION		INFLUENT	EFFLUENT	REDUCTION		INFLUENT	EFFLUENT
	million gallons	mil. gal	mgd	mg/l	mg/l	%	10^3 pounds	mg/l	mg/l	%	10^3 pounds	mg/l P	mg/l P
JAN	1.42	.05	.08	120	11	91	1.5	7	10			5.5	2.1
FEB	1.49	.05	.07										
MAR	2.04	.07	.10	110	7	94	2.1	100	5	95	1.9	7.3	3.1
APR	5.25	.17	.48	60	6	90	2.8	170	20	88	7.8	4.5	.5
MAY	5.54	.18	.34	100	7	93	5.1	85	2	98	4.5	5.3	1.0
JUNE	3.53	.12	.21	160	17	89	5.0	75	2	97	2.6	4.7	1.8
JULY		.14	.21	110	5	95	4.5	85	2	98	3.5	4.9	2.2
AUG		.10	.17	60	3	95	1.7	80	5	94	2.3	5.0	1.5
SEPT	2.36	.08	.13	150	6	96	3.4	130	1	99	3.1	5.1	2.1
OCT	2.57	.08	.25	42	2	95	1.0	55	1	98	1.4	2.7	.6
NOV	2.55	.09	.25	50	7	86	1.1	50	10	80	1.0	3.1	.9
DEC	2.51	.08	.24	60	1	98	1.5	80	3	96	1.9	3.7	2.1
TOTAL		-	-	-	-	-		-	-	-		-	-
AVG.		.10	MAXIMUM .48	93	7	92	2.6	83	5	94	2.4	4.6	1.6
No. of Samples	-	-	-	11	11	-	-	12	12	-	-	12	12

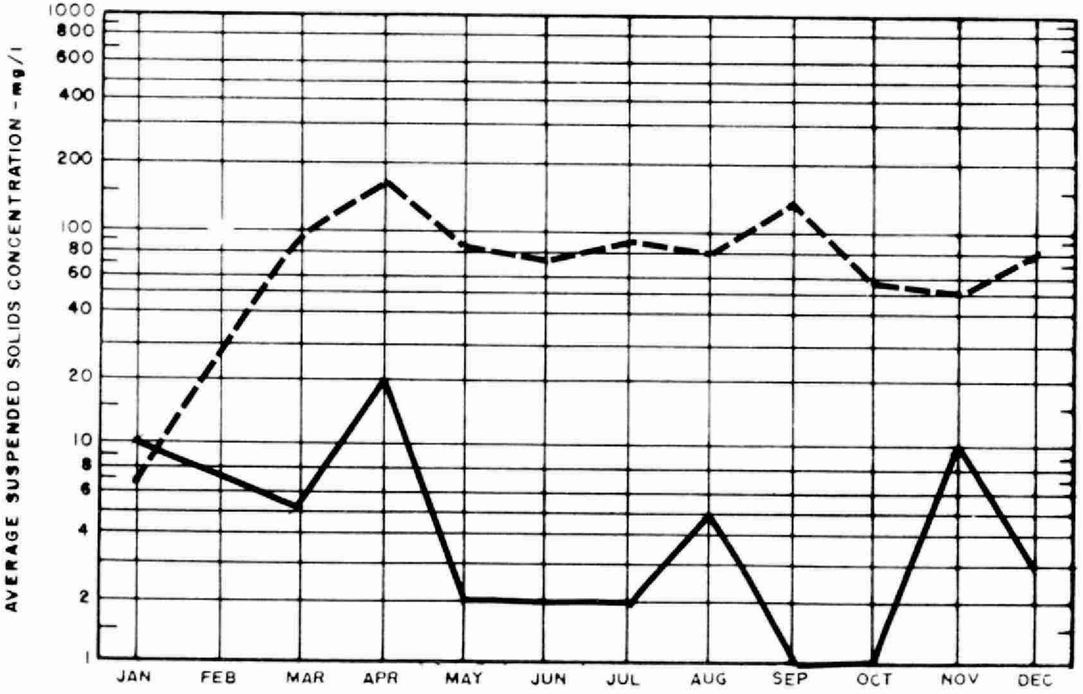
BIOCHEMICAL OXYGEN DEMAND





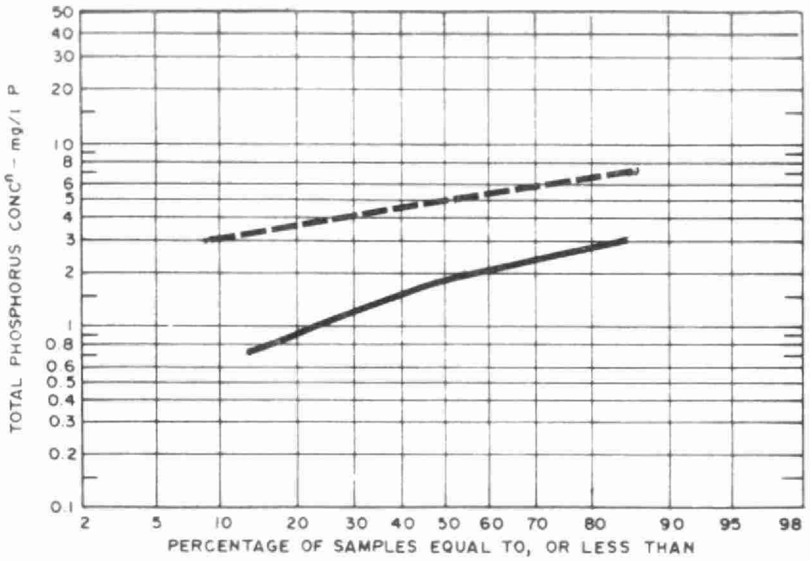
SUSPENDED SOLIDS

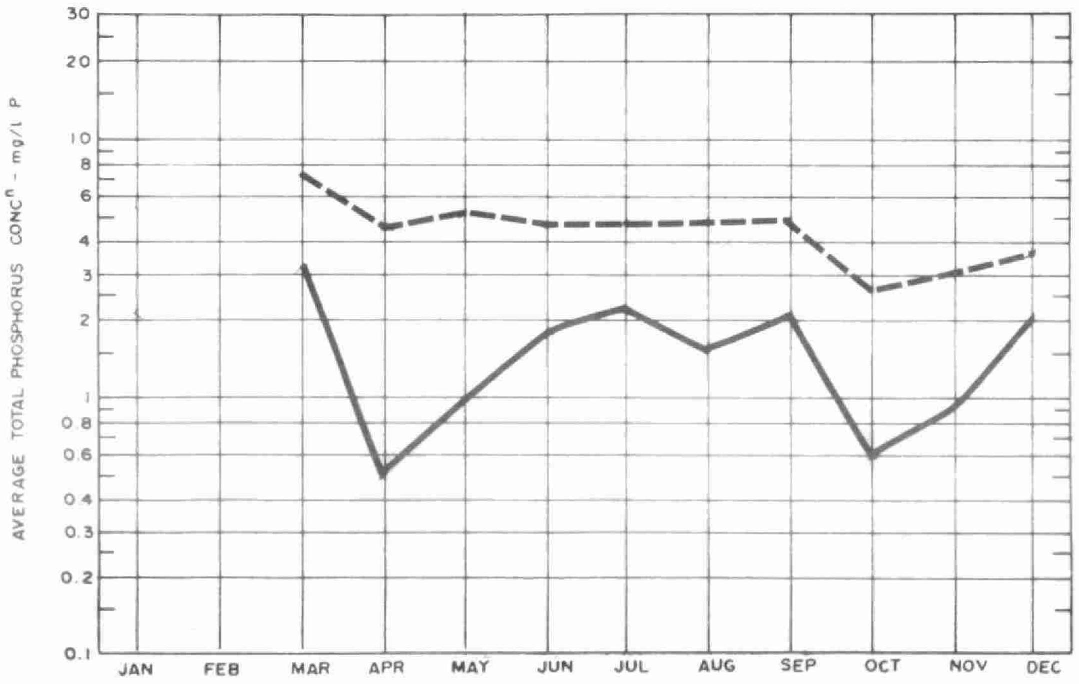




PLANT INFLUENT – – – – – –
PRIMARY EFFLUENT ··················
PLANT EFFLUENT ————

PHOSPHORUS





PLANT INFLUENT - - - - - -

PLANT EFFLUENT ———

TREATMENT DATA

MONTH	GRIT	CHLORINATION		AERATION			WASTE SLUDGE			AEROBIC DIGESTER			
	QUANTITY REMOVED cubic feet	Cl_2 USED pounds	AVG. DOSAGE mg/l	MLSS. CONC mg/l	F/M day^{-1}	AIR USED $\frac{1000\ ft}{lb\ BOD}$	QUANTITY 10 gallons	SUSPENDED SOLIDS mg/l	VOL. SOLIDS %	QUANTITY REMOVED 10 gallons	SUSPENDED SOLIDS mg/l	VOL. SOLIDS %	AMOUNT HAULED cubic yards
JAN	3	430	30.3	1920	.10								
FEB	8	398	26.7										
MAR	12	432	21.2	1580	.17						8500		
APR	8	520	9.4	2630	.15						10100		
MAY	20	647	11.7	2140	.32						12100		
JUNE	8	644	18.3	1240	.58						13200		
JULY	16	591	16.0	1590							12200		
AUG	16	516	18.6	1390							12700	57	
SEPT	16	467	19.8	1680	.29						3060		
OCT	20	472	18.3	1450	.09						5590	65	
NOV	16	448	17.6	2450	.07						7760	64	
DEC	16	455	17.7	2025	.09						9000	65	
TOTAL	159	6020	-	-	-	-		-	-		-	-	
AVG.	4.4 cu. ft/mil gal	502	16.4	1800	.21*						9400	63	

* Based on contact tank F/M only

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